

**DRAWINGS**

The attached replacement sheets of drawings include changes to FIGS. 4a-c and FIGS. 5a-c. These 13 Replacement Drawing Sheets, which include all of FIGS. 1-10b, replace the original 13 drawings sheets including FIGS. 1-10b.

The changes incorporated into the attached Replacement Sheets are as follows:

- i) In FIGS. 4a-c, the process step numbers point to the steps and not the arrows between the steps;
- ii) In FIG. 4a, steps between 403 and 404 have been labeled and numbered and the direction of process step flow for A and B have been clarified;
- iii) In FIG. 4b, steps between 412 and 415 have been labeled and numbered and the direction of process step flow for D has been clarified;
- iv) In FIG. 4c, steps between 422 and 423, between 427 and 429 and between 418 and C have been labeled and numbered;
- v) In FIG. 4c, the directions of process step flows for C and D have been clarified;
- vi) In FIG. 4c, decision block 417 as referenced in paragraph number [0091] at page 38 has been added;
- vii) In FIGS. 5a-c, reference numerals have been added as are provided in paragraph number [0077] at page 32.

Attachment: (13) Replacement Sheets

**REMARKS**

The non-final Office Action issued September 10, 2004 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. Replacement drawings are submitted herewith, the specification has been amended and claims 1, 16 and 26 have been amended to overcome rejections and objections asserted by the Examiner. New claims 27-31 are presented for the Examiner's review and consideration. Thus, Applicants respectfully request reconsideration of pending claims 1-31.

**Information Disclosure Statement**

The Information Disclosure Statement submitted on August 10, 2001 allegedly fails to comply with the 37 C.F.R. § 1.97, 1.98 and MPEP § 609 because the Hudson et al. reference is missing its date of publication. Submitted herewith for the Examiner's review and consideration is a supplemental information disclosure statement re-submitting the Hudson et al. reference in accordance with 37 C.F.R. § 1.97 and MPEP § 609. Additional references are also submitted for the Examiner's review and consideration.

**In The Drawings**

The drawings have been objected to because the item numbers for FIGS. 5a-c on page 32, para. [0077] are missing; process step numbers are pointing to the arrows between the steps; the steps between: steps 403 and 404 of FIG. 4a, between steps 412 and 415 of FIG. 4b, between steps 422 and 424 of FIG. 4c, between steps 427 and 429 of FIG. 4c, and between steps 418 and C of FIG. 4c are not labeled and numbered; decision block 417 referenced at page 38, para [0091] is missing from FIGS. 4a-c and the direction of process step flows for A, B, C and D in FIGS. 4a-c are unclear. *See* Office Action at 2-3.

Applicants submit herewith thirteen (13) replacement drawing sheets correcting the aforementioned objections to the drawings and replacing the originally filed thirteen (13) drawing sheets. Applicants respectfully request removal of the objections and approval of the drawing amendments.

**In The Specification**

The specification of the application as filed is objected to for the following informalities: the trademarks MICROSOFT INTERNET EXPLORER™ and NETSCAPE NAVIGATOR™ did not appear in capitalized letters and were not accompanied by the generic terminology; the title of the invention was not descriptive; “and exemplary” at page 12, para. [0033] would read well removed; the table on page 27 should be numbered; “discourses of universe” at page 18, para [0054] and “universe of discourses” at page 25, para [0068] would read well as “universes of discourse;” and “degree the depends” is unclear at page 22, para [0061]. *See* Office Action at 3-4.

Applicants have amended the specification so as to correct the objected to informalities by adopting several of the suggestions of the Examiner. Applicants have amended the title of the invention so as to recite “ARTIFICIAL INTELLIGENCE (AI) SYSTEMS AND METHODS FOR RISK ASSESSMENT.” In addition, Applicants have amended paragraph [0089] at pages 37-38 of the application as originally filed to reflect the numbering and labeling of process 430 added in FIG. 4a of the replacement sheets, which was done to overcome the previously stated objections to the drawings. The amendments to the title and specification are fully supported by the application as filed. For example, support for the amendment to the title is provided at page 17 para [0052] of the application as filed. Applicants respectfully request withdrawal of the objections to the specification.

**In The Claims**

Claim 26 stands objected to because, according to the Examiner, ‘one live expert’ would read well as ‘one expert.’ *See* Office Action at 4. Applicants have amended claim 26 adopting the suggestion of the Examiner. Applicants respectfully request withdrawal of the objection to claim 26 in view of the amendment thereto.

Claims 1-2, 6, 14-16, 23, and 25-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,471,382 to Tallman et al. (“Tallman”) in view of European Patent Publication 0681249 to Prezioso (“Prezioso”). In order to establish a *prima facie* case of obviousness, “there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings,” and “[T]he prior art reference (or references when combined) must teach or suggest all the claim limitations.” MPEP § 2143.01 at 2100-129. Applicants have amended independent claims 1 and 16, and therefore respectfully traverse these rejections because there is no suggestion or motivation to modify or combine Tallman and Prezioso, such that the references, singularly or in combination, teach or suggest the claimed invention as a whole as recited in amended independent claims 1 and 16, nor do Tallman and Prezioso, singularly or in combination, show or describe the claimed invention as a whole of amended independent claims 1 and 16.

Amended claim 1 recites a “risk assessment system for evaluating and determining levels of risk to a first individual for at least one social category, the first individual being a child, the system comprising,” among other features, “a first file stored in the memory and including data defining weighted profile characteristics of the first individual” and “a risk assessment

application defining the at least one social risk category, the at least one social risk category being child abuse or child neglect, the risk assessment application being in the computer for computing and storing in the computer memory a risk score in the at least one category for the first individual.” Amended claim 16 recites a “method of determining and monitoring a level of risk to a first individual for at least one social risk category, the first individual being a child, the method comprising,” among other features, “defining the at least one social risk category of the first individual to be monitored, the at least one social risk category being child abuse or child neglect, creating and storing in a memory accessible by a computer a first file including data defining profile characteristics of the first individual,” and “storing in the memory a risk assessment application for computing a composite risk score indicative of the level of risk to the individual for the at least one social risk category.” Support for the amended claims is provided in the application as filed, for example, at page 14, para [0046], at page 16, paras. [0050]-[0051], and at page 17, para [0052].

Nowhere in Tallman does it show or describe a system or method “defining at least one social risk category, the at least one social risk category being child abuse or child neglect.” Instead, Tallman “relates generally to a system and process for managing *health care* and addressing many of the problems faced by those involved with health care.” Tallman, col. 1, lns. 6-8 (emphasis added). According to Tallman, “it is an object of the invention to provide a *medical* network management system.” *Id.* at col. 2, lns. 10-14 (emphasis added). Prezioso does not cure the deficiency of Tallman. Accordingly, neither Tallman nor Prezioso, singularly or in combination, show or describe the claimed invention of amended independent claims 1 and 16 as a whole.

Moreover, as acknowledged in the Office Action, Tallman fails to show or describe profile characteristics, weighted or otherwise. *See* Office Action at 6 and 10. The Office Action proposes to cure this deficiency by modifying Tallman with the weighted profile characteristics of Prezioso. *Id.* at 7 and 11.

The Examiner asserts at pages 6-7 of the Office Action that there exists a motivation and therefore it would have been obvious to one of ordinary skill in the art to modify Tallman to include the weighted profile characteristics of Prezioso because “[t]he portions of the claimed system would have been a highly desirable feature in this art for [d]etermining behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile.” The Examiner further asserts at pages 10-11 of the Office Action that there exists a motivation and therefore it would have been obvious to one of ordinary skill in the art to modify Tallman with Prezioso for the purpose of determining “behavior profiles of entities that have a large number of behavior characteristics where one or more of the characteristics is weighted to determine the profile.” Applicants respectfully submit that the Examiner’s assertions are unsupported by the relied-upon references, and therefore absent the benefit of Applicant’s disclosure, there is no motivation or suggestion to combine the relied –upon references. Accordingly, claims 1 and 16 are patentable over Tallman and Prezioso, whether considered singularly or in combination thereof.

More specifically, to modify the medical network management system (NMS) of Tallman with the *quantifiable* profile characteristics of Prezioso would either change the principle operation of Tallman or otherwise render it unsuitable for providing a data processing system that includes a patient assessment stored program that utilizes a plurality of branched chain logic algorithms each configured to present a series of questions answerable with “yes” or “no.” *See*

Tallman at col. 2, ln. 65 to col. 3, ln. 3. Thus, Applicants submit that there is no suggestion or motivation to combine the references as proposed by the Examiner.

As is provided throughout Tallman, in describing the patient assessment component of the NMS:

Each yes/no stem question *must be answered yes or no* and leads to another question or action recommendation or transfer to another algorithm. Bayes Theorem provides the underlying rationale as to why this process works. The nodes are not all related to each other, *nor are they probabilistically dependent on each other*. . . . The purpose of the yes-no branched chain algorithm logic of the NMS is neither to diagnose nor to treat medical conditions. Rather, the algorithms logically sort a population of individuals who have, by telephone, identified themselves or someone else as possibly ill, usually because of a new sign or symptom which the caller feels is possibly due to an illness or injury, and who are seeking advice on what to “do next.” . . . The algorithms’ formal logic is branch-chained and binary. (An unsure answer has information to help determine whether to defer to yes or no.) . . . . The algorithm logic lays out the questions in the order they will be presented to the nurse by the system. The algorithms represent branched chain logic, with the most sensitive questions being asked first, moving on, in response to positive answers, to more specific questions to identify more specifically timing and type of appropriate care.

*Id.* at col. 7, lns. 41-46; col. 9, lns. 23-30; col. 11, ln. 56 to col. 12, ln. 6 (emphasis added). In contrast to the “binary” nature of the logic in the algorithms of Tallman, Prezioso “uses fuzzy logic principles . . . to establish an entity behavior profile.” Prezioso at 3, lns. 48-49.

Prezioso is directed to “a system and method for profiling the behavior of entities, where the entities have common characteristics . . . .” *Id.* at Abstract. The method of Prezioso comprises, among other features, “determining the behavior characteristics and *quantifying* each behavior characteristic that will be the object of the behavior profile 220.” *Id.* at 5, lns. 7-8 (emphasis added). According to Prezioso, the first step “in determining and quantifying behavior characteristics is identifying the type of behavior the profiler will seek to identify within the peer group as the target behavior. . . . The objective . . . is to identify a collection of

characteristics that, if found to be associated with an entity to a high degree, indicate that the entity is compatible with the target behavior.” *Id.* at 6, lns. 53-54. Prezioso states further:

A behavior characteristic is typically an indicator of target behavior. . . . An example, when profiling physicians to search for fraud, there are many well known indicators of fraud that can be used as behavior characteristics. Some examples are: an abnormally high *percentage* of office visits taking place on Sundays and Holidays; an abnormally high *percentage* of patients living outside the normal geography; an unusually high *percentage* of radiology visits; an unusually high *average age* for the patients for the physician; an unusually high *number* of patients treated in a single day.

*Id.* at 6, lns. 18-23 (emphasis added). Applicants respectfully submit that to modify the binary yes/no branched chain algorithm logic of Tallman with the method of Prezioso and its quantifiable or numerically based behavior characteristics, as is suggested by the Examiner, would change the principal operation of Tallman or render it unsatisfactory for its intended purpose.

The patient assessment component in the NMS system of Tallman is configured to process yes/no stem questions as described above, and therefore could not process the numerical based behavior characteristics contemplated by Prezioso. Tallman would otherwise require a change in the underlying logic of its algorithm to do so. As noted by the Manual of Patent Examining Procedure, “[I]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP § 2143.01 at 2100-131 (8th ed. Rev. 2 May 2004). In addition, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior invention being modified, then the teaching of the references are not sufficient to render the claims *prima facie* obvious.” *Id.* at 2100-132.



Applicants respectfully request withdrawal of the rejection under Section 103(a).

Because Tallman and Prezioso, singularly or in combination, neither show or describe the claimed invention of amended independent claims 1 and 16 as a whole, nor teach, show or describe any suggestion, motivation or desirability for their combination, a *prima facie* case of obviousness cannot be established. Accordingly, claims 1 and 16 are patentable over the cited references. Claims 2-15 and 17-26 depend from claims 1 and 16 respectively and should be allowed for at least the same reasons.

#### **New Claims**

New claims 27-31 are presented for the Examiner's review and consideration. New independent claim 27 and claims 28-31 depending therefrom are also fully supported by the application as filed, for example, at page 4, para [0007] and [0009], from page 16, para [0050] to page 26, para [0068], and Table 1. Independent claim 27 is directed to a child welfare risk assessment system. Neither Tallman or Prezioso, singularly or in combination, show or describe a child welfare risk assessment system as claimed. Applicants respectfully request entry and allowance of newly added claims 27-31.

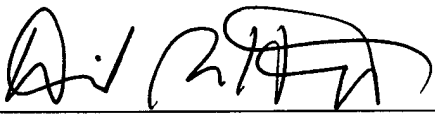
**CONCLUSION**

In view of the foregoing amendments and remarks, applicants respectfully request the reconsideration and reexamination of this application and allowance of the pending claims 1-31. Applicants respectfully invite the Examiner to contact the undersigned at (202)739-5722 if there are any outstanding issues that can be resolved via a telephone conference.

**EXCEPT** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,  
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